

SD advocate: Use ethanol to save your kids' lives

WATERTOWN, S.D. — For Orrie Swayze, all roads eventually lead to ethanol.

They have for a long time.

As the still-young ethanol fuel industry returns to profitability in the wake of the financial crisis in the industry two years ago, this pioneer of promotion is shifting his focus toward international research that he says shows gasoline produces pollutants that can cause birth defects.

"The best thing we ever did was produce a fuel that didn't cause birth defects. Why doesn't that ring bells?" Swayze asks a farmer from Wilmot, S.D., sitting at the Cenex C-Store in Watertown, S.D. — one of the early promoters of ethanol fuel blends and E-85 fuels.

Swayze, one of the region's longest and loudest promoters of fuel ethanol, has been working with the South Dakota March of Dimes to coordinate a "Yellow Dime Days" in the area.

Ethanol promoters plan to use the "yellow dime" event — sometime in May or June — to offer consumers a discount per gallon of ethanol. The discount is given out in the form of a rebate, with customers getting the payback in yellow-painted dimes. The yellow dimes, the color of corn, are circulated in the area for an awareness of ethanol's impact.

He's a proud investor in three ethanol plants, including Glacial Lakes Energy LLC of Watertown, which he says will team with Sioux Valley Cooperative to match consumer donations to the March of Dimes.

That's the kind of thing that would bring attention to the cause, he says.

"This generation — history will judge this generation that we maimed our own kids, just by our gasoline and transportation fuels," Swayze says.

Farming and science

Swayze says he doesn't just think petroleum is a problem; he says he knows it.

"That's what science, what the medical profession knows it is, because gasoline emissions are identical to cigarette smoke — benzene, polycyclic aromatic hydrocarbons — that's the main culprits in this whole thing. Gasoline should be all displaced," he says.

Swayze, a chemistry major in college, says Swedish research shows that air inside a vehicle in traffic is strikingly similar to air in a tobacco smoke-filled room.

He graduated from high school in 1961 and went on to South Dakota State University. He graduated in 1965 with a bachelor of science degree. With his Reserve Officer Training Corps training, he went into the Air Force.

He flew more than 100 missions over North Vietnam in a Navy airplane.

"In 1967, I graduated from Vietnam," he says.

He spent five years in Minot, N.D., with the Air Force and then taught school for a year in the early 1970s before returning home to Wilmot.

Back on the farm, he went on to be the president of the founding board of the South Dakota Corn Utilization Council and served on boards for the American Coalition for Ethanol and for the North Dakota-based Golden Growers Cooperative.

Swayze describes corn as something of a "miracle crop," both in its production and because of its environmental friendliness. He shows a soil test analysis that shows one field of 5.9 percent organic matter on corn-on-corn with strip till.

Mounting evidence

The Chinese government has said the use of petroleum has doubled the rate of birth defects. The U.S. simply suspects a connection, which Swayze says is "wishful thinking."

"Look who loses. Go visit any children's hospital," Swayze says. "Everybody who buys gas ought to sit in one of those clinics and know that what they're emitting is the same damn stuff as cigarette smoke."

Swayze says to park a car in a garage is "like having someone sitting in there, smoking all day." Some of the exhaust gets in the house unless it's vented out, but then it's in the yard. "The lawn mower is probably worse, and you put your youngest kids on it," he says.

The gases are diluted, but Swayze says with benzene, even low levels are dangerous. Recent news was that benzene can damage sperm, causing Klinefelter's Syndrome — two X chromosomes in the child, creating learning and language disabilities.

Cigarettes — what they do to babies, with cancer and other maladies — is well known, Swayze says, but people seem to overlook the impacts of gasoline fumes and emissions.

Ethanol is better than gasoline, he says, because the alcohol doesn't produce the benzene and aromatics.

"It can't," he says. "A short, two-hydrocarbon chain can't produce them. They tell us ethanol is just as bad, but that's an oil company's propaganda.

"Whatever you put in with ethanol as opposed to gasoline is a total gain."

It's true that fuel alcohol produces acid aldehyde, he says, but no more than gasoline, and the catalytic converter does a good job of removing it.

Another approach

This isn't the first time Swayze has looked at the horizon to identify an issue that becomes tomorrow's selling point for ethanol.

About five years ago, Swayze began growing concerned about what he saw as a "train wreck coming with the blend wall," meaning that ethanol making capacity soon would outstrip the demand if motorists were limited to 10 percent blends for standard cars. Flex-fuel equipped vehicles were able to use 85 percent blends, but ordinary vehicles were not.

"That was visible four or five years ago, and the basis was going against us," he says. "We were losing hundreds of millions of dollars because we hit the blend wall."

His concern was expanding the market.

Swayze says some of the earlier critics of this thinking were in the ethanol industry itself.

"They don't believe me," he says. "Put it away, forget it. You're out of your mind, type thing, you know. When we first started with blender pumps, it was the same thing."

Those who supported the idea of blender pumps sometimes didn't want to emphasize the concept. Part of this was a worry that selling intermediate blends would undermine the industry higher-ethanol blend of E85.

Today, both North Dakota and South Dakota have state programs, subsidizing gasoline station owners for installing blender pumps. The South Dakota Legislature just this year put \$1 million into the project, offering \$10,000 per pump. The North Dakota specifications are more restrictive, originally requiring United Laboratory requirements.

He says he recently talked to one of his old students.

"She says, 'you were talking about ethanol in vehicles back then.' She said, 'all the boys laughed at you.' That's been going on for 40 some years. When I talk about things, they laugh."

How much petroleum should be replaced?

That isn't the question, he says.

"It could go as far as we want," Swayze says. "But we should really look at methanol and natural gas. Between ethanol, methanol, natural gas and propane, we could replace gasoline. That should be our goal. And don't do it for anything else but the kids that haven't been born yet. Why isn't the medical, the March of Dimes, every parent saying that?"